UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,662	06/02/2006	Graeme Alexander	322-00093	4594

26753 7590 08/14/2006

ANDRUS, SCEALES, STARKE & SAWALL, LLP
100 EAST WISCONSIN AVENUE, SUITE 1100
MILWAUKEE, WI 53202

EXAMINER	
MAYO III, WILLIAM H	

ART UNIT	PAPER NUMBER
2831	

DATE MAILED: 08/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/551,662	ALEXANDER ET AL.	
	Examiner	Art Unit	
	William H. Mayo III	2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-70 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-70 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 30 September 2005 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 09/30/05.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in National PCT Application No. PCT/AU04/00410, filed on March 31/04.

Information Disclosure Statement

2. The information disclosure statement filed September 30, 2005 has been submitted for consideration by the Office. It has been placed in the application file and the information referred to therein has been considered.

Drawings

3. The drawings are objected to because Figure 4 lacks the proper cross-hatching which indicates the type of materials, which may be in an invention. Specifically, the cross hatching to indicate the conductive and insulation materials is improper. The applicant should refer to MPEP Section 608.02 for the proper cross-hatching of materials. Correction is required.

In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the

amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Specification

4. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

5. The abstract of the disclosure is objected to because in line 1, the abstract contains the term “comprise”, which is improper claim language for the abstract. The applicant should replace the term with –having--. Also, in line 7, the abstract contains a misspelled word “insulting”. The applicant should correct the spelling to denote --insulating--. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-5, 12-22, 24-29, 36-40, 42-46, 53-64, and 68-70 are rejected under 35 U.S.C. 102(b) as being anticipated by Kasahara (JP Pat Num 11-297128). Kasahara discloses a cable having enhanced insulating characteristics and voltage resistant characteristics, increase flexibility to improve wiring capability, and enhance productivity and economical efficiency (abstract). Specifically, with respect to claim 1, Kasahara discloses a cable (Figs 1-2) comprising at least one conductor (2), an insulating layer (3a, silicone with mica & glass) which forms a ceramic when exposed to an elevated temperature (see Effect of the Invention, paragraph 34), at least one additional heat transformable layer (3b, silicone with mica & glass), which is capable of enhancing the physical properties of the insulating ceramic forming layer (3a) at least during or after exposure to an elevated temperature (paragraph 26). With respect to claim 2, Kasahara discloses that the insulating layer forms a self supporting ceramic (3a) when exposed to the elevated temperatures experienced in a fire (i.e. silicone becomes molten along with the mica and glass which softens and bonds to form a solid layer when cooled). With respect to claim 3, Kasahara discloses that the physical properties of the insulating ceramic forming layer (3a) enhanced by at least one additional heat transformable layer (3b) are selected from the mechanical strength of the combined layers (3a & 3b) before, during, and after exposure to fire and the electrical and thermal resistance of the combined layers during or after exposure to the fire (abstract). With respect to claim 4, Kasahara discloses that the at least one transformable layer (3b) is a

ceramic forming layer (silicone combined with mica & glass) which is extruded with the insulating layer (3a) onto the conductor (2, paragraph 20) and forms a ceramic when exposed to an elevated temperature (see Effect of the Invention, paragraph 34). With respect to claim 5, Kasahara discloses that the second ceramic forming layer (3b) may be stronger than the ceramic layer formed by the insulating layer (3a, abstract, second layer may be made of a different material being stronger). With respect to claim 12, Kasahara discloses that the at least one heat transformable layer (3b) may be a sacrificial layer provided on the metal conductor (2), wherein the layer (3b) comprises an organic polymer (silicone) and an inorganic filler (mica and metal oxide, paragraph 16). With respect to claim 13, Kasahara discloses that the sacrificial layer (3b) decomposes at or below elevated temperature (silicon layer becomes moltened) resulting in the formation of the inorganic filler (i.e. metal oxide and mica) between the substrate (silicone) and the ceramic (mica) such that bonding of the ceramic (mica) to the metal conductor (2) is minimized or prevented (paragraph 26). With respect to claim 14, Kasahara discloses that the layer (3b) may comprise at least 50% of inorganic filler (abstract). With respect to claim 15, Kasahara discloses that the organic polymer (silicone) decomposes at or below the temperature at which the ceramic forming layer forms a ceramic (abstract). With respect to claim 16, Kasahara discloses that the organic polymer (silicone) is capable of leaving little or no residue on thermal composition (i.e. if the fire is hot enough the silicone polymer will dissolve). With respect to claim 17, Kasahara discloses that the layer (3b) has a thickness within the range of 0.2-2mm (paragraph 25). With respect to claim 18, Kasahara discloses that

the inorganic filler (metal oxide) may be magnesium hydroxide (paragraph 16). With respect to claim 19, Kasahara discloses that the at least one forming layer (3b) may be a glaze layer forming layer comprising a component (i.e. glass) which after exposure at an elevated temperature cools to form a glaze layer which is capable of being impervious to water (i.e. glass & mica becomes moltened and then solidifies when cooled forming a water impedance layer). With respect to claims 20-21, Kasahara discloses that the glaze forming layer (3b) comprises two glaze forming components (glass and mica), which become molten during elevated temperatures associated with fire (paragraph 34) With respect to claim 22, Kasahara discloses the composition making up the glazing layer (i.e. mica and glass and silicone) may be coextruded with the ceramic layer (mica) onto the conductor (2, paragraph 20). With respect to claims 24-25, Kasahara discloses that the at least one additional layer (3b) may be an operational strength layer (abstract), which forms a sheathing layer on the conductor (2), which forms a ceramic supporting layer at elevated temperatures associated with fire (abstract). With respect to claim 26, Kasahara discloses method of producing a cable (Figs 1-2) comprising the steps of extruding an insulating layer (3a, silicone with mica & glass) onto a conductor (2), wherein the insulating layer (3a) forms a ceramic when exposed to an elevated temperature (see Effect of the Invention, paragraph 34), and extruding at least auxiliary layer (3b, silicone with mica & glass), which is capable of transforming during or after exposure to an elevated temperature (paragraph 26) to enhance physical properties of ceramic forming layer (3a). With respect to claim 27, Kasahara discloses a method wherein the physical properties of the insulating ceramic

forming layer (3a) enhanced by at least one auxiliary layer (3b) are selected from the mechanical strength of the combined layers (3a & 3b) before, during, and after exposure to fire and the electrical and thermal resistance of the combined layers during or after exposure to the fire (abstract). With respect to claim 28, Kasahara discloses a method wherein the at least one auxiliary layer (3b) is a ceramic forming layer (silicone combined with mica & glass) which is extruded with the insulating layer (3a) onto the conductor (2, paragraph 20) and forms a ceramic when exposed to an elevated temperature (see Effect of the Invention, paragraph 34). With respect to claim 29, Kasahara discloses a method wherein the second ceramic forming layer (3b) may be stronger than the ceramic layer formed by the insulating layer (3a, abstract, second layer may be made of a different material being stronger). With respect to claim 36, Kasahara discloses a method wherein the at least one auxiliary layer (3b) may be a sacrificial layer provided on the metal conductor (2), wherein the layer (3b) comprises an organic polymer (silicone) and an inorganic filler (mica and metal oxide, paragraph 16). With respect to claim 37, Kasahara discloses a method wherein the at least one auxiliary layer (3b) may comprise at least 50% of inorganic filler (abstract). With respect to claim 38, Kasahara discloses a method wherein the inorganic filler (metal oxide) may be magnesium hydroxide (paragraph 16). With respect to claim 39, Kasahara discloses a method wherein the layer (3b) has a thickness within the range of 0.2-2mm (paragraph 25). With respect to claim 40, Kasahara discloses a method wherein the at least one auxiliary layer (3b) may be a glaze layer forming layer comprising a component (i.e. glass) which after exposure at an elevated temperature cools to form a

glaze layer which is capable of being impervious to water (i.e. glass & mica becomes moltened and then solidifies when cooled forming a water impedance layer). With respect to claim 42, Kasahara discloses method of designing a cable (Figs 1-2) comprising the steps of selecting an ceramic forming layer (3a, silicone with mica & glass) form extruding onto a conductor (2), which is capable of transforming during or after exposure to an elevated temperature (paragraph 26) to enhance physical properties of ceramic forming layer (3a), determining the properties of the ceramic forming layer (3a) before, during, and after exposure to the fire (abstract), selecting a material for a second layer (3b, silicone with mica & glass), and extruding the layer (3b) on the ceramic forming layer (3a) and conductor (2). With respect to claim 43, Kasahara discloses fire proof article (i.e. cable (Figs 1-2)) comprising a metal substrate (i.e. conductor (2)), an protective layer (3a, silicone with mica & glass) which forms a ceramic when exposed to an elevated temperature (see Effect of the Invention, paragraph 34), and at least one additional heat transformable layer (3b, silicone with mica & glass), which is capable of enhancing the physical properties of the insulating ceramic forming layer (3a) at least during or after exposure to an elevated temperature (paragraph 26). With respect to claim 44, Kasahara discloses that the insulating layer forms a self supporting ceramic (3a) when exposed to the elevated temperatures experienced in a fire (i.e. silicone becomes molten along with the mica and glass which softens and bonds to form a solid layer when cooled). With respect to 45, Kasahara discloses that the physical properties of the insulating ceramic forming layer (3a) enhanced by at least one additional heat transformable layer (3b) are selected from the

mechanical strength of the combined layers (3a & 3b) before, during, and after exposure to fire and the electrical and thermal resistance of the combined layers during or after exposure to the fire (abstract). With respect to claims 45-46, Kasahara discloses that the second ceramic forming layer (3b) may be stronger than the ceramic layer formed by the insulating layer (3a, abstract, second layer may be made of a different material being stronger). With respect to claim 53, Kasahara discloses that the at least one heat transformable layer (3b) may be a sacrificial layer provided on the metal conductor (2), wherein the layer (3b) comprises an organic polymer (silicone) and an inorganic filler (mica and metal oxide, paragraph 16). With respect to claim 54, Kasahara discloses that the sacrificial layer (3b) decomposes at or below elevated temperature (silicon layer becomes moltened) resulting in the formation of the inorganic filler (i.e. metal oxide and mica) between the substrate (silicone) and the ceramic (mica) such that bonding of the ceramic (mica) to the metal conductor (2) is minimized or prevented (paragraph 26). With respect to claim 55, Kasahara discloses that the layer (3b) may comprise at least 50% of inorganic filler (abstract). With respect to claim 56, Kasahara discloses that the at least one forming layer (3b) may be a glaze layer forming layer comprising a component (i.e. glass) which after exposure at an elevated temperature cools to form a glaze layer which is capable of being impervious to water (i.e. glass & mica becomes moltened and then solidifies when cooled forming a water impedance layer). With respect to claims 57-58, Kasahara discloses that the glaze forming layer (3b) comprises two glaze forming components (glass and mica), which become molten during elevated temperatures associated with fire (paragraph 34). With

respect to claims 59-60, Kasahara discloses that the at least one additional layer (3b) may be an operational strength layer (abstract), which forms a sheathing layer on the conductor (2), which forms a ceramic supporting layer at elevated temperatures associated with fire (abstract). With respect to claim 61, Kasahara discloses method of producing a fire performance article (i.e. cable (Figs 1-2)) comprising the steps of extruding an insulating layer (3a, silicone with mica & glass) onto a conductor (i.e. metal substrate, 2), wherein the insulating layer (3a) forms a ceramic when exposed to an elevated temperature (see Effect of the Invention, paragraph 34), and extruding at least auxiliary layer (3b, silicone with mica & glass), which is capable of transforming during or after exposure to an elevated temperature (paragraph 26) to enhance physical properties of ceramic forming layer (3a). With respect to claim 62, Kasahara discloses a method wherein the physical properties of the insulating ceramic forming layer (3a) enhanced by at least one auxiliary layer (3b) are selected from the mechanical strength of the combined layers (3a & 3b) before, during, and after exposure to fire and the electrical and thermal resistance of the combined layers during or after exposure to the fire (abstract). With respect to claims 63-64, Kasahara discloses a method wherein the second ceramic forming layer (3b) may be stronger than the ceramic layer formed by the insulating layer (3a, abstract, second layer may be made of a different material being stronger). With respect to claim 68, Kasahara discloses a method wherein the at least one auxiliary layer (3b) may be a sacrificial layer provided on the metal conductor (2), wherein the layer (3b) comprises an organic polymer (silicone) and an inorganic filler (mica and metal oxide, paragraph 16). With respect to claim 69, Kasahara

discloses a method wherein the at least one auxiliary layer (3b) may comprise at least 50% of inorganic filler (abstract). With respect to claim 70, Kasahara discloses a method wherein the at least one auxiliary layer (3b) may be a glaze layer forming layer comprising a component (i.e. glass) which after exposure at an elevated temperature cools to form a glaze layer which is capable of being impervious to water (i.e. glass & mica becomes moltened and then solidifies when cooled forming a water impedance layer).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 6-11, 23, 30-35, 41, 47-52, and 65-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kasahara (JP Pat Num 11-297128) in view of Von Bonin et al (Pat Num 4,992,481, herein referred to as Von). Kasahara discloses a cable having enhanced insulating characteristics and voltage resistant characteristics, increase flexibility to improve wiring capability, and enhance productivity and economical efficiency (abstract), as disclosed above with respect to claims 1, 19, 22, 26, 28, 29, 40, 43, 45, 62, and 63. Specifically, with respect to claim 6, Kasahara discloses that the layer (3b) comprises an organic polymer (silicone) and an inorganic filler (mica and metal oxide, paragraph 16). With respect to claims 10-11, Kasahara discloses that the second forming ceramic layer further comprises an inorganic filler (metal oxide) may be magnesium hydroxide or aluminum oxide (paragraph 16). With respect to claim 23, Kasahara discloses that the glaze forming layer (3b) comprises two glaze forming components (glass and mica), which become molten during elevated temperatures associated with fire (paragraph 34). With respect to claim 30, Kasahara discloses that the layer (3b) comprises an organic polymer (silicone) and an inorganic filler (mica and metal oxide, paragraph 16). With respect to claims 34-35, Kasahara discloses that the second forming ceramic layer further comprises an inorganic filler

(metal oxide) may be magnesium hydroxide or aluminum oxide (paragraph 16). With respect to claim 41, Kasahara discloses that the glaze forming layer (3b) comprises two glaze forming components (glass and mica), which become molten during elevated temperatures associated with fire (paragraph 34). With respect to claim 47, Kasahara discloses that the layer (3b) comprises an organic polymer (silicone) and an inorganic filler (mica and metal oxide, paragraph 16). With respect to claims 51-52, Kasahara discloses that the second forming ceramic layer further comprises an inorganic filler (metal oxide) may be magnesium hydroxide or aluminum oxide (paragraph 16).

However, Kasahara doesn't specifically disclose the glaze carrier component to the carrier component being in the range of 0.9:1 to 1.2:1 (claims 4 & 31), nor the second ceramic layer comprising an inorganic phosphate (claims 6, 30, 47 & 65), nor the inorganic filler being silicate (claims 7, 33, & 50), nor the inorganic phosphate being ammonium polyphosphate (claims 8, 31, 48, & 66), nor the ammonium polyphosphate being in the range of 20-40% weight based on the total weight of the composition (claims 9, 32, 49, & 67), nor the glaze carrier component to the carrier component being in the range of 0.9:1 to 1.2:1 (claims 23 & 41).

Von teaches a flame resistance composition that may be utilized as a cable insulation and has superior adhesion properties, and impermeability to smoke (Col 3, lines 1-7& 25-30). Specifically, with respect to claims 6, 30, 47, & 65, Von teaches a composition which is capable of forming a ceramic when exposed to an elevated temperature (Col 3, lines 33-40), thereby capable of enhancing the physical properties of the composition at least during or after exposure to an elevated temperature (Col 3,

lines 33-40), wherein the composition comprises an organic polymer (Col 6, lines 10-44) and an inorganic phosphates (Col 5, lines 51-68). With respect to claims 7, 33, & 50, Von teaches that the inorganic filler may be silicate (Col 5, lines 52-54). With respect to claims 8, 31, 48, & 66, Von teaches that the inorganic phosphate may be made of ammonium polyphosphate (Col 9, line 68). With respect to claims 9, 32, 49, & 67, Von teaches that the ammonium phosphate has a weight of between 20-40% (i.e. 1: 36%) based on the total weight of the composition (Col 7, lines 42-48). With respect to claims 23 & 41, Von teaches that the binder to filler component may be in the range of 1:2.1 (i.e. 32.3:65, Col 7, lines 42-48).

It would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the composition of Kasahara to comprise the composition configuration as taught by Von because Von teaches that such a configuration provides a flame resistance composition that may be utilized as a cable insulation and has superior adhesion properties, and impermeability to smoke (Col 3, lines 1-7& 25-30) and since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller, 105 USPQ 233.*

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They are Belli et al (Pat Num 7,049,524), Miyata et al (Pat Num 4,145,404), Okoshi et al (Pat Num 2005/0113500), Hinoshita et al (Pat Num 5,597,981),

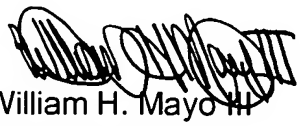
Von Bonin (Pat Num 4,367,295), Stone (Pat Num 3,576,940), and Dickinson (EP Pat Num 0559382A1), all of which disclose flame retardant compositions for cables.

Communication

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (571)-272-1978. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William H. Mayo III
Primary Examiner
Art Unit 2831

WHM III
August 5, 2006